

JF / C1332

Mr Craig Burgin
Gad's Hill School
Gravesend Road
Higham
ROCHESTER
Kent
ME3 7PA

27th February 2026

Dear Craig

**RE: STRUCTURAL REPORT FOLLOWING INSPECTION OF RETAINING/BOUNDARY
WALL TO EAST BOUNDARY ADJOINING KINDERGARTEN AT GAD'S HILL SCHOOL,
GRAVESEND ROAD, HIGHAM, ROCHESTER, KENT ME3 7PA**

Alan Baxter Partnership was requested to carry out a structural inspection of the retaining/boundary wall to the east side of the kindergarten building, to confirm the structural condition following recent removal of plant growth from the wall after previous reports of cracking and movement of the wall. This wall was commented on in our structural report for Gad's Hill Place following our inspections of the 24th & 25th August 2022. Further inspections of the wall were carried out since that date with inspections restricted by plant grown over the wall. Following our visit of 26th February 2026 we report our findings as follow:

As Structural Engineers we are not qualified to comment on damp, timber decay or insect infestation.

We are unable to comment on area or items that are covered or were not accessible at the time of our visit.

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- a) This report should be read in conjunction with our previous report dated 19th April 2023, particularly part 3 p). Our inspection of 26th February was carried out together with the project Architect Leslie May of DAC Architects.
- b) The wall is constructed with red brickwork and is located to the east side of Gad's Hill School Kindergarten which is site to the northern side of the site adjoining the Boundary fence and the Gravesend Road. The wall is retaining approx. 2.1m at the lower level with a widening of the wall, then supporting a 1.3m high boundary wall.
- c) The lower wall is constructed in Flemish bond and appears to be at least 330mm thickness with concrete behind it. The widening or step-back in the wall is approx. 450mm with the boundary wall 225mm thick with intermediate 440 x 440mm piers. The boundary wall separates the high-level area of the small road-side plot containing a transformer station, presumably owned by UK Power Networks.
- d) The boundary line runs broadly in a due south direction from the road to the southern boundary of the site, some 250m distant. We are concerned with the approx. 15m length of retaining wall and the boundary wall which follows the falling profile of the ground for a further 20m. The boundary wall to the non-retaining is approx. 2.1m height comprising 1.8m of brickwork on top of a 300mm height of rag and flint wall.
- e) As noted above, a project to remove all of the plant growth from these walls to allow them to be fully inspected was completed earlier this week. Coincidentally UKPN or their contractors have very recently removed the growth from the west side of the boundary wall.
- f) As noted previously, cracking was identified to the wall at 3.0m distance from the junction with the north wall. This area was seen to have extensive brick loss to the outer leaf of brickwork with several brick headers protruding. The area affected extended over 700 x 2500mm approx. with the bricks salvaged and stored nearby.
- g) At 6.2m distance the extensive roots of self-sown sycamore were seen. The tree was removed in 2025 we recall, with the tree stump and root network seen to remain. Roots of up to 125mm diameter were seen to have penetrated the wall beyond the outer leaf of the brickwork. Horizontal displacement of the wall locally to the roots was seen to be in excess of 400mm. The roots were found to extend from 500mm height up to the step-back of the wall at approx. 2.1m height. The roots were also seen to have penetrated the boundary wall at the upper level and had caused a 50mm vertical lift in the wall.
- h) Pronounced mortar loss and local brick loss was also observed at the height transition in the wall at some 15m from the north wall. This was seen to be the point where the upper boundary wall and retaining wall heights meet due to reduction in the ground level. The wall observed from this point to be non-retaining. A historically coppiced willow tree is found to the neighbour's side of the wall and seen to hang over the wall close the change in height.

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- i) It was found to the southern end of this section of the wall that removal of the plant growth revealed the top 6 courses of the wall to be loose or already failed. The centre section of the lower wall was measured to lean in excess of 80mm over a 1m long spirit level, the leaning noted to occur mainly to the top of the wall.
- j) During our inspection previously installed soil anchor bolts and large square pattress plates were found, installed in the retaining section of the wall only. It is not known when and by whom they were installed. Power and internet cables were also found to have been fixed to the wall, extending to the kindergarten building to the Pavillion building.
- k) At upper level the boundary wall was then inspected. The length of wall closest to the northern corner was seen to be in fair condition and was measured to be broadly vertical. At approx. 3.5m from the northern corner the condition of the wall was found to deteriorate where the ivy and elder had grown on and in the wall. The mortar was seen to be recessed and absent with consequent displacement of the bricks noted.
- l) The top of the wall was observed to be damaged and to have failed to ground level from approx. 8-9m distance. The wall particularly from the 2nd pier at about 6m distance was seen to be in very poor condition with vertical displacement seen, caused by root intrusion from the sycamore to the school side of the wall.
- m) The failed wall permitted unrestricted pedestrian access from the roadway and sub-station area to the school grounds, with no effective barrier to the 2.2m fall to the lower ground level. A temporary Heras fence was seen to have been installed at a safe distance from the base of the wall in case the wall was to fail.
- n) No weep holes were seen to the retaining section of the wall with areas of dampness and moss and lichen grown seen to the face of the wall in areas which was found to continue to the length of the wall not retaining, under the spread of the willow tree.
- o) Our primary concern following our inspection of the wall, or walls, is the safety of any pedestrian who may deliberately or accidentally enter the area of the failed upper wall and fall to the lower kindergarten garden level. Temporary or permanent fencing should be installed without delay to prevent this happening.
- p) The temporary Heras fencing installed at lower level should remain in place until the walls are stabilised. The temporary fence should be extended to include the full length of the boundary wall as far as the Pavillion building.

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- q) The majority of the boundary wall at high level is considered to be structurally compromised and likely to fail. We recommend that the boundary wall at high level, from the 2nd pier from the front corner, is carefully dismantled and the bricks carefully set aside for re-use. Similarly we recommend that all of the loose bricks to the boundary wall at lower level should be removed and stored for re-use when repairing the wall.
- r) The upper level boundary wall is not of sufficient height to deter anyone from scaling the wall. If it is to be repaired, we suggest that it is rebuilt to 2.0m height or that the wall be replaced with a timber close-boarded fence as has been installed to the north or road-side boundary.
- s) The retaining wall to the northern end appears to be in a vulnerable condition due to a lack of maintenance and the invasive and destructive action of the roots of the now felled sycamore tree and the roots of ivy, elder and other ground covering plants that have recently been removed from the wall.
- t) We recommend that the area of the wall beneath the set back at approx. 3.0 distance for the corner is carefully rebuilt using bricks salvaged from the wall, set in an approved lime mortar as existing, using the original brick bonding pattern. Further local dismantling of the brickwork may be required to find a solid starting point. Stainless-steel starter ties will be required where the brick headers have broken.
- u) With regard to the area of the retaining wall at 6.2m from the corner, where the sycamore tree stump and roots have penetrated the wall, we recommend that following repair of the damage closer to the corner, that the stump and all surface and invasive roots are carefully removed. Temporary propping may be required to support the wall in it's weakened condition while the works are undertaken. Following this work the brickwork should be made good as elsewhere, using original or Conservation approved replacement bricks.
- v) Areas of damage and of extreme lean to the boundary wall at lower level should be carefully dismantled and the wall rebuilt vertical using approved materials. We also recommend that the power and internet cables currently fixed to the retaining and lower boundary walls should be relocated away from the wall to prevent damage to these services.
- w) We also recommend that the willow tree to the neighbour's side of the wall is removed completely, to prevent further mechanical damage and shading of the wall.

Yours sincerely



JAMES FOLLEY
FOR ALAN BAXTER PARTNERSHIP